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XXXVII.—Notes on various African and Asiatic Species of *Hapalochrus*, Er., with an Account of their accessory ♂-characters [Coleoptera]. By G. C. CHAMPION, F.Z.S.

[Concluded from p. 266.]

[Plate VIII.]

### 46. *Hapalochrus filicornis*, sp. n.

♂. Very like *H. foveiger* (No. 44), and differing as follows : antennæ slender, filiform ; elytral puncturing a little denser and finer ; anterior tibiæ more slender, simply excavate in about their outer third within ; intermediate femora not foveate at the base inferiorly ; intermediate tibiæ narrower and much less thickened (only a little stouter than in ♀), foveate at the middle beneath, and also shallowly excavate at the apex inferiorly, without definite lobe at the inner apical angle.

♀. Antennæ as in ♂.

Length 5-5½, breadth 2-2¼ mm. (♂ ♀.)

Hab. E. AFRICA, Kashitu and Mwendwa, N. Rhodesia (*H. C. Dollman* : i., ii., xi. 1914 and i. 1915).

Described from two precisely similar males and three females. Very like *H. foveiger* from the same region, with the ♂-characters less developed than in most of the allied species. The anterior tarsi have the second joint narrowly

extended over the third, as in the ♂ of that insect. Smaller and less robust than *H. janthinus*, Fairm. (*goossensi*, Pic), the elytral puncturing much finer, the intermediate tibiae of ♂ narrow.

47. *Hapalochrus angulatus*, sp. n.

♂. Elongate, somewhat convex, shining, the head subopaque; thickly clothed with rather long, semi-erect hairs; cyaneous, bluish-green, or green, the antennal joints 1-3 in part, and the intermediate femora at the base, testaceous, the rest of the legs and antennæ black or metallic. Head densely punctulate; antennæ not very stout, subfiliform. Prothorax transverse, obliquely narrowed behind, closely punctulate laterally, almost smooth on the disc. Elytra long, widened to near the apex, broadly rounded at the tip; densely, not very coarsely punctate. Anterior tibiae compressed and slightly sinuate; anterior tarsal joints 1 and 2 slightly thickened, subequal in length, 2 with a claw-like extension over 3; intermediate tibiae (Pl. VIII. fig. 28) moderately thickened, angularly dilated at the middle externally, and deeply, sinuously excavate from about the basal third to near the apex, and also excavate at the tip, beneath.

♀. Legs wholly black or metallic.

Length  $4-4\frac{1}{10}$ , breadth 2 mm. (♂ ♀.)

*Hab.* E. AFRICA, E. foot and slopes of Aberdare Mts., alt. 7000-8500 ft. (*S. A. Neave*: 24-27. ii. 1911: ♂, type).

Described from two males with precisely similar ♂-characters, the angular lateral median dilatation of the intermediate tibiae being an unusual development in the genus. *H. rollei* and *H. sinuatifpes*, Pic (1911), from "E. Africa," are perhaps allied forms.

48. *Hapalochrus cyanocephalus*, sp. n.

♂. Elongate, rather narrow, shining, the head opaque; finely pubescent, and also clothed with long, semi-erect, fuscous hairs; head and prothorax cyaneous, the elytra green, the antennal joints 1-4 in part, the bases of the intermediate femora beneath and the ventral segments (some black markings excepted) testaceous, the rest of the legs, antennæ, and under surface black. Head rugulosely punctulate; antennæ long, rather stout, subfiliform. Prothorax broader than long, very sparsely punctulate, smooth on the disc. Elytra long, gradually widening to near the apex, the latter rounded; densely, rugulosely punctured.

Anterior tibiæ sinuate, compressed before the tip; anterior tarsal joints 1 and 2 slightly thickened, 2 extending over 3; intermediate tibiæ moderately thickened, sinuate externally, without lobe at the inner apical angle, excavate at the middle and apex beneath.

Length  $3\frac{1}{2}$ , breadth  $1\frac{2}{3}$  mm.

*Hab.* W. CENTRAL AFRICA, Nyangwe, Belgian Congo (*R. Mayné*: iii.-iv. 1918).

One male. This species agrees with *H. testaceicornis*, *dilaticornis*, &c., in having a finely rugulose, opaque, blue head; but it differs from them in the basally unarmed anterior femora, the simply sinuate, feebly incrassate, non-appendiculate intermediate tibiæ, and the undilated antennæ (which are formed as in the ♀ of the insects mentioned), of the ♂. *H. inchoatus*, found at the same date at Nyangwe, has a shining, more distinctly punctured head. *H. angulatus*, from the Aberdare Mts., is perhaps the nearest allied form to *H. cyanocephalus*, the latter having the elytra less dilated posteriorly and more densely and not so coarsely punctate, and the intermediate tibiæ of ♂ less angulate externally.

#### 49. *Hapalochrus rhodesianus*, sp. n.

♂. Moderately elongate, shining, sparsely clothed with fine pubescence intermixed numerous long, erect, fuscous hairs; blue or bluish-green, the head and prothorax sometimes brassy-cupreous, the antennæ, palpi, and legs black or metallic. Head short, slightly depressed in front, sparsely punctate; antennæ rather short, broad, serrate, joints 5-9 strongly transverse. Prothorax much broader than long, a little wider than the head, very sparsely punctate, smooth and feebly canaliculate on the middle of the disc. Elytra widened posteriorly, depressed on the disc below the base, coarsely, closely punctate, the puncturing becoming a little sparser anteriorly. Anterior trochanters with a curved, hook-like tooth; anterior femora with two or three setæ at the base; anterior tibiæ sinuate, compressed towards the apex; anterior tarsal joints 1 and 2 slightly thickened, 2 extending over 3; intermediate tibiæ moderately and abruptly widened from a little below the base to near the tip, excavate at the apex beneath.

♀. Antennæ much more slender, feebly serrate.

Length  $3\frac{3}{4}$ -5, breadth  $1\frac{3}{4}$ -2 mm. (♂ ♀.)

*Hab.* E. AFRICA, Mwendwa in N.W. Rhodesia (*H. C. Dollman*: xii. 1913 and i. 1914).

Eleven examples, including four males. Smaller, less elongate, and more shining than *H. platycerus* (No. 35), the antennæ less dilated, the head and prothorax shorter and much smoother, the elytra coarsely, less densely punctate, the intermediate tibiæ of the male comparatively slender, and abruptly, equally thickened from near the base, the anterior trochanters toothed in the same sex. The more closely punctured elytra, and the broader antennæ and angulate intermediate femora in ♂, separate the present species from *H. hamatus*.

50. *Hapalochrus furcatus*, sp. n.

♂. Moderately elongate, shining, sparsely clothed with fine pubescence intermixed with numerous long, erect, blackish hairs; cyaneous, the head and prothorax sometimes brassy or green, the legs, palpi, and antennæ black or metallic. Head short, sparsely punctulate; antennæ moderately long, rather stout, feebly serrate, joints 3-9 longer than broad. Prothorax much broader than long, sparsely punctulate, smooth across the middle of the disc. Elytra gradually widened posteriorly, depressed on the disc below the base, rather coarsely and not very closely punctate, the puncturing becoming more diffuse anteriorly, the interspaces here and there obliquely raised or plicate. Anterior trochanters unarmed; anterior tibiæ with a rather stout obliquely raised lobe at the middle above and compressed thence to the apex; anterior tarsal joints 1 and 2 slightly thickened, 2 extending over 3; intermediate tibiæ moderately thickened, sinuate, excavate at the middle and tip beneath.

♀. Antennæ more slender and much shorter.

Length 4-4½, breadth 1¾-2 mm. (♂ ♀.)

*Hab.* E. AFRICA, Kashitu in N.W. Rhodesia (*H. C. Dollman*: i. 1915).

Three males and four females. Recognizable by the obliquely lobed anterior tibiæ and the simply sinuate, moderately thickened intermediate tibiæ of the male, the elytra rather sparsely punctate and with somewhat plicate interspaces, the upper surface very shining, wholly or in great part cyaneous, the legs and antennæ black or metallic. The puncturing of the elytra is sparser and a little finer than in *H. rhodesianus*, a character by which their respective females may be separated.

51. *Hapalochrus irregularis*, sp. n.

♂. Moderately elongate, rather narrow, very shining, sparsely pubescent, and also somewhat thickly set (the legs included) with long, dark, suberect, bristly hairs; cyaneous or bluish-green, the elytra sometimes brassy, the legs, antennæ, and palpi black or metallic, the abdomen in part testaceous. Head and prothorax sparsely punctulate, the latter transverse and smooth on the disc; antennæ serrate, rather stout, long, about reaching the middle of the elytra. Elytra widened posteriorly, sharply margined, depressed on the disc anteriorly, bluntly rounded at the tip; rather sparsely, irregularly, moderately coarsely punctate, the interspaces uneven, here and there transversely or obliquely plicate. Anterior tibiæ with a broad rounded lobe at the middle, and excavate and compressed beyond this; anterior tarsal joints 1 and 2 thickened, 2 projecting over 3; intermediate tibiæ moderately incrassate, sinuate, subangulate externally, and deeply excavate at the middle and apex beneath, without lobes at the tip.

Length 4-4½, breadth 1½-2 mm.

*Hab.* W. CENTRAL AFRICA, Congo da Lemba (*R. Mayné*: i., ii., iv. 1913), Léopoldville (*Dr. A. Dubois*: v.-vi. 1911).

Described from twelve males belonging to the Congo Museum, all but one from Congo da Lemba. Near the Rhodesian *H. furcatus*, the antennæ much longer, the intermediate tibiæ stouter (formed much as in *H. angulatus*), the median lobe of the anterior pair larger. The elytra have an immature appearance as in *H. mollis* (No. 53), the puncturing being much coarser than in that species. The ♀ is apparently unrepresented in the abundant Congo material before me.

52. *Hapalochrus amadiensis*, sp. n.

♂. Elongate, narrow, very shining, sparsely pubescent and also somewhat thickly set with long, semi-erect, blackish, bristly hairs: cyaneous, the basal joint of the antennæ beneath and the ventral sutures testaceous, the rest of the antennæ, the palpi, and legs black or metallic. Head and prothorax very sparsely punctulate, the latter smooth on the disc and nearly as long as broad; antennæ moderately long, rather stout, subserrate. Elytra long, widened posteriorly, sharply margined, rounded at the tip, depressed on the disc anteriorly; coarsely, closely punctate, the interspaces here and there transversely or obliquely plicate. Anterior

trochanters with a short blunt tooth; anterior tibiæ simply sinuate, without median dilatation; anterior tarsal joints 1 and 2 thickened, 2 projecting over 3; intermediate femora hollowed before the apex beneath, appearing subangulate at the middle; intermediate tibiæ slightly sinuate and feebly, abruptly incrassate from near the base to the tip, the lower surface foveate at the middle and hollowed at the apex.

Length 5, breadth  $2\frac{1}{2}$  mm.

*Hab.* W. CENTRAL AFRICA, Amadi, Belgian Congo (*P. van den Plas*: iv. 1913).

One male, in the Congo Museum. More elongate than *H. irregularis* ( $\sigma$ ), the antennæ much shorter, the prothorax less transverse, the elytra more coarsely punctured, the anterior tibiæ simply sinuate, the intermediate tibiæ feebly, abruptly widened from near the base, as in the same sex of the Rhodesian *H. hamatus*. Compared with the last-named insect, the  $\sigma$  of the present species may be distinguished by the stouter anterior tibiæ, the subserrate antennæ, and the closely, coarsely punctate elytra. The simply sinuate anterior tibiæ, the subangulate intermediate femora, and the more coarsely punctured elytra separate *H. amadiensis* from *H. confusus*,  $\sigma$ , an insect with similar intermediate tibiæ.

### 53. *Palpalochrus mollis*, sp. n.

$\sigma$ . Elongate, shining, thickly clothed with long, fine, erect hairs; bluish-green or green, the head and prothorax sometimes brassy or the elytra cyanous, the antennæ, palpi, and legs wholly black or metallic; head and prothorax sparsely punctulate, the latter smooth on the disc. Antennæ stout, serrate, tapering towards the tip, joints 6-9 strongly transverse. Prothorax transverse, small, obliquely narrowed behind. Elytra long, widened posteriorly, uneven, depressed on the disc below the base; closely, finely punctate, the interspaces here and there obliquely plicate. Anterior tibiæ thickened at a little beyond the middle and hollowed thence to the apex; anterior tarsal joints 1 and 2 slightly thickened, subequal in length, 2 extending over 3; intermediate tibiæ rather broadly, abruptly, and equally widened from near the base to the apex, distinctly sinuate externally, truncate at the tip.

$\varphi$ . Antennæ shorter and not so stout, feebly serrate.

Length  $3\frac{1}{2}$ -4, breadth  $1\frac{1}{2}$ -2 mm. ( $\sigma$   $\varphi$ .)

*Hab.* E. AND W. CENTRAL AFRICA, S. of Lake George [type] and Plains N.E. of Lake Edward in Uganda, Valley of Upper Nzoia River, N. Kavirondo, S. foot and slopes of

Mt. Elgon, alt. 3200-5800 ft. (*S. A. Neave*: vii., x. 1911: ♂ ♀); Belgian Congo, Kasindi (*Dr. Bayer, in Mus. Congo Belge*: 13. iv. 1912: ♀).

Three males and three females captured by Dr. Neave and a female by Dr. Bayer. A small, bluish-green, hairy insect, with uneven, finely punctured elytra, and black legs and antennæ, the ♂ with stout, serrate, tapering antennæ, and abruptly widened, sinuate intermediate tibiæ. The finely punctured elytra separate *H. mollis* from *H. rhodesianus* and *H. hamatus*, both of which have different ♂-characters.

#### 54. *Haplochrus armatus*, sp. n.

♂. Elongate, shining, clothed with long, blackish, semi-erect hairs; green, bluish-green, or violaceous, the antennæ almost wholly, and the legs entirely, black or metallic; head and prothorax very sparsely punctate, the latter smooth on the disc. Antennæ stout, serrate, moderately long. Prothorax transverse, convex, obliquely narrowed behind. Elytra long, widening to near the apex, somewhat flattened on the disc, more or less depressed or hollowed below the base, rounded at apex; closely, confusedly, rather coarsely punctate, smoother and diffusely punctured at the base. Anterior trochanters produced into a short blunt tooth; anterior tibiæ rather stout, rapidly widened to about the middle, and obliquely compressed beyond this; anterior tarsal joints 1 and 2 subequal in length, slightly thickened, 2 extending over 3; intermediate femora almost straight; intermediate tibiæ moderately incrassate, slightly sinuate, excavate at the middle and apex beneath.

♀. Antennæ a little shorter and more slender.

Length 5, breadth  $2\frac{1}{2}$  mm. (♂ ♀.)

*Hab.* E. AFRICA, Mlanje in Nyasaland (*S. A. Neave*: 17. iii. 1913).

One pair. Larger and more robust than *H. hamatus* and *H. rhodesianus*, the elytra more closely punctured, the anterior tibiæ strongly dilated. The following species, *H. confusus*, seems to be its nearest ally.

#### 55. *Haplochrus confusus*, sp. n.

♂. Extremely like *H. armatus* and differing as follows: the elytra a little more finely punctured, the interspaces more uneven, here and there obliquely raised; anterior trochanters unarmed; anterior tibiæ feebly, subangularly dilated; intermediate femora hollowed before the apex

(appearing subangular at about the middle); intermediate tibiae slightly narrower, feebly sinuate.

♀. Elytra rounded or subacuminate at apex.

Length 4-5½, breadth 2-2⅔ mm. (♂ ♀.)

*Hab.* E. AFRICA, Nandi Escarpment [type] and S. foot and slopes of Mt. Elgon [♂ ♀], Mpanga Forest, Toro, Top of Escarpment N. of Fort Portal, Jinja-Busia, and Yala River, S. edge of Kakumba Forest, alt. 3800-5800 ft. (*S. A. Neave*: ♂ ♀), Ngare Narok, Masai Reserve (*Capt. A. O. Luckman*: ♀).

Six males and numerous females, the latter possibly not all belonging here. *H. confusus* forms a sort of connecting-link between *H. armatus* and *H. amadiensis*, these two insects having toothed anterior trochanters in ♂, and the latter wanting the angular dilatation of the anterior tibiae in the same sex. Some of the females slightly approach *H. caudatus*, type ♀, in the shape of the elytra, and females of both of them were taken near Jinja.

56. *Hapalochrus caudatus*, sp. n.

♀. Elongate, somewhat depressed, shining, sparsely pubescent and also clothed with long, erect, fuscous hairs; brassy or bluish-green, the elytra in great part or wholly cyanaceous, the antennae (the testaceous lower surface of joint 1 excepted) and legs black or metallic. Head and prothorax almost smooth, the latter broader than long and obliquely narrowed behind; antennae rather short, subserrate. Elytra long, widening to near the apex and then rapidly narrowed and produced at the tip, sharply margined laterally, flattened or depressed on the disc anteriorly; closely, somewhat coarsely punctate, the interspaces here and there obliquely plicate.

Length 5¼-6½, breadth 2½ mm.

*Hab.* E. AND W. CENTRAL AFRICA, Mbale-Kumi Road, south of Lake Salisbury, between Jinja and Busia, Siroko R., near west foot of Mt. Elgon, and Banks of Nile near Kakindu, alt. 3400-1000 ft. (*S. A. Neave*: viii. 1911), Kambove, Katanga, alt. 4000-5000 ft. (*S. A. Neave*: iii. 1907: type); Belgian Congo, Kilom. 215 de Kindu (*L. Burgeon, in Mus. Congo Belge*: 25. ii. 1912).

Seven females, varying in the length of the caudiform apices of the elytra. No male has been detected in the collections before me that seems likely to belong to this species, the first to be described with the elytra thus shaped. *H. confusus* is perhaps the nearest ally; but the ♀ of that insect



has the elytra rounded or very slightly produced at the apex, and the confused puncturing closer and finer.

### 57. *Hapalochrus maynei*.

♂. *Hapalochrus maynei*, Pic, Rev. Zool. Africa, iii. p. 381 (1914).

♂. Antennæ comparatively short and slender, subfiliform, joints 3-5 not longer than broad; anterior trochanters unarmed; anterior tibiæ slender, slightly compressed beyond the middle; anterior tarsal joints 1 and 2 a little thickened, 2 extending over the base of 3; intermediate femora slender; intermediate tibiæ feebly incrassate, distinctly sinuate externally, foveate at about the middle beneath.

*Hab.* W. CENTRAL AFRICA, Congo da Lemba [type] (*R. Mayné*: v. 1912, i.-iv. 1913: ♂ ♀), Nyangwe (*R. Mayné*: iii.-iv. 1918: ♀), Amadi (*P. van den Plas*: iii.-iv. 1913: ♀).

The ♂-characters given above are taken from a long series from Congo da Lemba, including the type and numerous other specimens of the same sex. Amongst the various very similar insects from the same region, *H. densatus*, *longicornis*, *patruelis*, &c., all of which have the sides of the prothorax rugulose, *H. maynei* may be distinguished by its small size (length  $2\frac{1}{3}$ - $2\frac{2}{3}$  mm.), the short, slender antennæ in both sexes, the feebly thickened intermediate tibiæ in ♂, and the finely punctured elytra.

### 58. *Hapalochrus dollmani*, sp. n.

♀. Elongate, narrow, almost parallel-sided, shining, clothed with fine whitish pubescence intermixed with very long, erect, fuscous hairs; bluish-green, the head and prothorax with a faint brassy tinge, the mouth-parts, basal joints of antennæ, and the tibiæ, tarsi (except at their tips), and ventral sutures, testaceous, the rest of the antennæ black. Head sparsely punctulate, tumid in the middle in front; antennæ slender, serrate, rather elongate. Prothorax broader than long, nearly as wide as the anterior portion of the elytra, narrowed behind, convex, deeply foveate in the middle and excavate laterally at the base, sparsely punctate along the margins. Elytra long, slightly widened posteriorly, depressed on the disc below the base, densely, very finely, rugulosely punctate.

Length  $4\frac{1}{2}$ , breadth  $1\frac{2}{3}$  mm.

*Hab.* E. AFRICA, Mwendwa, N.W. Rhodesia (*H. C. Dollman*: 13. iv. 1904).

One female. Near the Palearctic *H. femoralis*, Er., and similarly coloured; the antennæ longer, serrate; the head much smoother; the elytra more densely punctate; the erect, dark, bristly hairs on the upper surface longer. The ♂ probably has slender intermediate tibiæ, as in the less elongate S. African *H. dasytiformis* (No. 10), and in the northern *H. femoralis* and its allies. In the absence of this sex, *H. dollmani* cannot be included in the Key given on pp. 179-180.

59. *Hapalochrus semilevis*, sp. n.

♂. Rather short, pilose, very shining; bluish-green, the elytra cyaneous, the antennæ (the testaceous lower surface of the basal joints excepted) black or metallic. Head and prothorax almost smooth, the head short, broad, the prothorax transverse, obliquely narrowed behind; antennæ rather slender, the joints from 3 onwards much longer than broad, 2 longer than 3. Elytra rather short, rapidly widened from the base, blunt at the tip, transversely depressed on the disc below the base and along the suture anteriorly; coarsely, closely punctate, almost smooth at the base and apex. Anterior trochanters sharply toothed; anterior tibiæ rather stout, strongly sinuate, compressed and excavate towards the apex within, and abruptly emarginate and diaphanous on its inner edge before the tip; anterior tarsal joint 2 short, simple; intermediate tibiæ rapidly thickened from the base, becoming very stout towards the apex, rounded and convex externally, hollowed before the tip within, and with a short, compressed lobe at the inner apical angle.

Length  $4\frac{1}{5}$ , breadth 2 mm.

*Hab.* E. AFRICA, Dedza District, Central Angoniland, alt. 4000-5000 ft. (*S. A. Neave*: 21-27, v. 1910).

One male. In this insect the elytra are rather short and subtriangular, coarsely, closely punctured at the sides and across the middle, and almost impunctate at the base and apex, a form of sculpture unusual in the present genus; and the anterior trochanters are sharply toothed, the anterior tibiæ strongly sinuate, and the intermediate tibiæ very stout. The nearest allied form in the collections before me, *H. inæqualis* from Nyasaland &c., also has simple anterior tarsi in ♂.

60. *Hapalochrus inæqualis*, sp. n.

♂. Moderately elongate, clothed with erect, blackish, bristly hairs; brilliant bluish-green, the elytra cyaneous in

one specimen, the antennæ (the testaceous lower surface of the basal joints excepted) and legs black or metallic. Head and prothorax almost smooth, the head short, broad, the prothorax transverse, obliquely narrowed behind; antennæ rather stout, the joints longer than broad. Elytra widening posteriorly, rounded at the apex, transversely excavate on the disc anteriorly and depressed along the suture at the base; unequally punctate, the punctures coarse and crowded at the sides and more scattered on the disc, becoming very fine or obsolete at the base and apex. Anterior trochanters produced into a very short tooth; anterior tibiæ rather slender, obliquely excavate, and with the inner margin diaphanous towards the apex; anterior tarsal joint 2 shorter than 1, simple; intermediate tibiæ almost straight, becoming gradually stouter towards the apex, and furnished with a rather long narrow lobe at the inner apical angle and a curved pencil of hairs beneath the outer angle.

♀. Antennæ not quite so stout; body fully winged.

Length  $4\frac{1}{2}$ -5, breadth  $2\frac{1}{10}$ - $2\frac{1}{2}$  mm. (♂ ♀.)

*Hab.* E. AFRICA, Mlanje in Nyasaland (*S. A. Neave*: 8. i. 1913: ♂ ♀), Lusinga Isl., E. Victoria Nyanza (*S. A. Neave*: iv. 1911: ♀).

A pair from Mlanje and a ♀ from Lusinga. More elongate than *H. semilævis*, the puncturing of the disc of the elytra more diffuse; the ♂ with a shorter spur to the anterior trochanters, the anterior tibiæ less sinuate, and the intermediate pair straighter, less swollen, and bearing a longer appendage at the inner apical angle. The anterior tarsi of ♂ are simple as in *H. amplipennis* and *H. modestus*.

#### 61. *Hapalochrus triangularis*, sp. n.

♂. Of the general facies of *H. modestus*, Bourg.; brassy green above; antennæ rather slender; prothorax obliquely narrowed and very feebly sinuate at the sides before the base; elytra comparatively short, much widened posteriorly, bluntly rounded and somewhat convex at the apex, the puncturing not quite so coarse; anterior trochanters toothed; anterior tibiæ feebly dilated at the middle (as in *H. modestus*); anterior tarsi simple; intermediate tibiæ (Pl. VIII. fig. 29) strongly incrassate, convex and rounded externally, excavate and with a short compressed lobe near the inner apical angle.

Length  $3\frac{1}{2}$ , breadth  $1\frac{2}{10}$  mm.

*Hab.* E. AFRICA, Kikuyu Escarpment, Kijabe-Limuru, Uganda Railway, alt. 7000 ft. (*S. A. Neave*: iii. 1911).

One male. A larger, more robust ♀ (length 5 mm.), found at a lower elevation S. of Lake George, with stouter antennæ and relatively longer elytra, and another from E. Busoga, cyaneous in colour, both taken by Dr. Neave, may belong to the same species. *H. viridimetallicus*, *jeanneli*, and *lusanganus* var. *dentaticoxis*, Pic (1919), are doubtless allied forms, but the incomplete diagnoses are useless for the purposes of identification; the sex of the first two of them is not stated, and the third should have a tooth on the anterior trochanters, not on the coxæ.

62. *Hapalochrus constricticollis*, sp. n.

♂. Elongate, shining, clothed with long, semi-erect blackish hairs; head bluish-green, prothorax brassy-black, elytra cyaneous, the antennæ, palpi, legs, and under surface greenish or black, the antennal joints 1-3 testaceous beneath. Head and prothorax very sparsely punctulate, the prothorax almost smooth on the disc, nearly as long as broad, and strongly constricted posteriorly, the basal portion narrow; antennæ long, subfiliform, rather stout. Elytra long, flattened on the disc, widening to near the apex, the latter rounded; very coarsely, closely, uniformly punctate. Anterior trochanters dentate; anterior tibiæ gradually widened to about the middle and then obliquely sulcate and compressed; anterior tarsi simple, joint 2 shorter than 1; intermediate tibiæ (Pl. VIII. fig. 30) strongly incrassate, rapidly widening from the base, sinuate externally, and furnished with a rather broad, compressed, outwardly curved, appendage at the inner apical angle, the outer apical angle toothed beneath, the lower surface deeply, obliquely excavate beyond the middle and also excavate at the apex, the apical excavation fringed with long fulvous hairs in front.

Length  $4\frac{1}{10}$ , breadth  $2\frac{1}{10}$  mm.

*Hab.* W. CENTRAL AFRICA, Beni-Lesse, Belgian Congo (Dr. Murtula: vii. 1911).

One male. More elongate than *H. modestus*, Bourg., the type of which is before me, the prothorax more strongly constricted before the base, the dilated median portion of the anterior tibiæ not produced into a tooth (as in *H. modestus*, the ♂ thus differing from that of *H. amplipennis*), the intermediate tibiæ with a longer, compressed, curved appendage at the inner apical angle.

63. *Hapalochrus cyaneonitens*, sp. n.

♂. Elongate, rather convex, very shining, thickly clothed with long, erect, blackish, bristly hairs; brilliant cyaneous,

the legs, palpi, and antennæ black or metallic, the intermediate trochanters in one specimen, and the ventral sutures, reddish. Head sparsely punctate; antennæ rather stout, long. Prothorax transverse, wider than the head, smooth on the disc, sparsely punctured at the sides. Elytra long, widened posteriorly, very coarsely, somewhat diffusely punctate, the puncturing becoming more crowded at the sides and finer at the base. Anterior tibiæ rather stout, thickened at the middle, and then strongly, obliquely compressed; anterior tarsal joints 1 and 2 subequal in length, slightly thickened, 2 simple; intermediate tibiæ greatly thickened, convex externally, excavate at the middle and apex beneath, and with a short compressed lobe at the inner apical angle.

Var. *kamerunus*, n. The elytra much more closely and finely punctured, the vestiture longer and more abundant. [ $\sigma$  ♀.]

Length 5-6, breadth  $2\frac{1}{2}$ - $2\frac{4}{5}$  mm. ( $\sigma$  ♀.)

*Hab.* E. AND E. CENTRAL AFRICA, Road to Kilossa, Usagara District, alt. 1500-2500 ft. [type] (*S. A. Neave*: 22-26. xii. 1910:  $\sigma$  ♀), Serenje District in N.E. Rhodesia, alt. 4500 ft. (*S. A. Neave*: 16. xii. 1907:  $\sigma$ ); W. CENTRAL AFRICA, Babua Bondaye, Kamerun (6. v. 1914: *Mus. Brit.*:  $\sigma$  ♀, var.).

Extremely like the variable and abundant *H. janthinus*, Fairm. (*goossensi*, Pic), and possibly confused with that species by Bourgeois, wanting the claw-like superior prolongation of the second anterior tarsal joint in  $\sigma$ , which is very distinct (when the tarsus is viewed in profile) in a Kilimandjaro example named by him and lent me by Dr. Sjöstedt. The four specimens selected as types (3  $\sigma$   $\sigma$  and 1 ♀) have the elytral punctuation coarse, and sparse on the disc, while the var. *kamerunus* (5  $\sigma$   $\sigma$ ) has it closer and a little finer, and exactly as in the enormous series of *H. janthinus* from the Belgian Congo before me, these latter having the claw-like tarsal development to the second tarsal joint. *H. inæqualis* and *H. semitevis* are allied insects with toothed anterior trochanters and simple anterior tarsi in  $\sigma$ , the former having narrower and more strongly appendiculate intermediate tibiæ, and the latter much shorter elytra.

#### 64. *Hapalochrus kenyensis*.

? *Apalochrus semicupreus*, s.sp. *kenyensis*, Pic, *Mélanges exot.-entom.* xxxi. p. 10 ( $\sigma$  ♀) (Oct. 1919).

$\sigma$ . Rather short, fusco-hirsute, brilliant bluish-green, the elytra cyanous, the antennæ (the lower surface of joints 1 and 2 excepted) and legs black or metallic. Head and

prothorax rather small, almost smooth, the latter transverse, sparsely punctulate at the sides; antennæ feebly serrate; elytra gradually widened to beyond the middle, blunt at the tip, densely, coarsely, rugosely punctate; anterior trochanters without tooth; anterior femora subangulate beneath; anterior tibiæ moderately thickened, sinuate, compressed and obliquely excavate towards the apex; anterior tarsi simple, joint 2 short; intermediate tibiæ greatly thickened, short, convex and rounded externally, excavate at the apex beneath, and with a short compressed lobe at the inner apical angle.

Length  $3\frac{1}{2}$ , breadth  $1\frac{9}{10}$  mm.

*Hab.* E. AFRICA, S.E. slopes of Kenya, alt. 6000–7000 ft. (*S. A. Neave*: ii. 1911), Kabete (*T. J. Anderson*: 25. x. 1917).

Two males, possibly referable to *H. kenyensis*, Pic, and the only species before me from the Kenya region fitting his very incomplete diagnosis. Smaller than *H. semicupreus* (No. 33), the head and prothorax almost smooth, the elytra a little more parallel, the ♂ with simple anterior tarsi, and wanting the tooth to the anterior trochanters and the angular dilatation of the anterior tibiæ.

The ♀, according to Pic, has posteriorly dilated elytra, and it may be represented amongst the variable series of specimens of that sex placed by me under *H. amplipennis*, Harold.

### 65. *Hapalochrus amplipennis*.

♀. *Hapalochrus amplipennis*, Harold, Monatsb. Akad. Wiss. Berlin, 1878, p. 220; Fairm. Ann. Soc. Ent. Fr. 1887, p. 158.

*Hapalochrus (Paratinus) amplipennis*, Bourg. in Sjöstedt's Kilimandjaro-Meru Exped. i. Abt. 7, No. 10, p. 133 (♂ ♀) (1908).

♂. Antennæ long, rather slender, joints 3–9 elongate, 2 (=3 of Harold) longer than 3; anterior trochanters unarmed; anterior femora hollowed in their outer half beneath; anterior tibiæ widened and compressed, angularly dilated or dentate at about the middle, and deeply, obliquely excavate immediately beyond this; anterior tarsal joint 1 longer than 2, 2 short, simple; intermediate tibiæ greatly thickened, subtriangular, convex and rounded externally, excavate beneath, and furnished with a rather broad, short, compressed lobe at the inner apical angle; elytra narrow at the base, rapidly widened to beyond the middle, and bluntly rounded at the apex; wings ample.

♀. Elytra inflated and more rounded at the sides; wings much reduced in size.

Length  $3\frac{3}{4}$ – $5\frac{1}{2}$ , breadth  $2\frac{1}{10}$ –3 mm. ( $\sigma$   $\varphi$ .)

*Hab.* E. AFRICA, Kitui (*type of Harold*), Lake Mutandu in Uganda (*C. H. Marshall*: 10. iii, 1911:  $\sigma$   $\varphi$ ), Ruwenzori (*Scott Elliot*:  $\varphi$ ), S. foot of Mt. Elgon, S.E. slopes of Kenya, E. foot and slopes of Aberdare Mts., Kikuyu Escarpment, S.E. Buddu, S.E. Ankole (*S. A. Neave*:  $\sigma$   $\varphi$ ), Nairobi (*Dr. A. D. Milne*:  $\sigma$ ; *S. A. Neave*:  $\varphi$ ), Ruiru (*T. J. Anderson*:  $\sigma$ ), Narok, Masai Reserve (*Capt. A. O. Luckman*:  $\sigma$   $\varphi$ ), Embu (*Orde-Brown*:  $\varphi$ ), Kilimandjaro, Meru, Kibonoto (*Dr. Sjöstedt*:  $\sigma$   $\varphi$ ), Ukamiberge (*Mus. Brit.*:  $\varphi$ ), Ruanda district (*Dr. C. H. Marshall*:  $\varphi$ ).

There is a long and variable series of this species, including a dozen males, in the British Museum, and a  $\sigma$  and  $\varphi$  of it from Kibonoto named by Bourgeois have been sent me by Dr. Sjöstedt for examination. The upper surface is usually cyaneous or bluish-green, the prothorax being brassy-cupreous in the pair from Lake Mutandu. Some of them have the prothorax distinctly sinuate before the base, and one or two others have the elytra obsolete unieostate. The head and prothorax are almost smooth, and the elytra are very coarsely punctured. The elytra in the females vary in length, probably according to the development of the wings, one of the three from Elgon having them considerably longer than the others. The Mutandu specimens approach *H. semicupreus*, Pic, as here recognized. *Laius latipennis*, Pic (1906), type  $\varphi$ , from Rodolph, E. Africa, is queried by Bourgeois as synonymous with *H. amplipennis*, Harold; but, if correctly identified by me, it is separable from the latter by the elongate, narrow third antennal joint in that sex, and therefore belongs to *Heterolaius* (*cf. ante*, p. 179).

#### 66. *Hapalochrus modestus*.

*Hapalochrus (Paratinus) modestus*, Bourg. in Sjöstedt's Kilimandjaro-Meru Exped. i. Abt. 7, No. 10, p. 134 ( $\sigma$   $\varphi$ ) (1908).

$\sigma$ . Anterior tibiæ feebly dilated at the middle, the dilated portion not produced into a tooth; the other characters as in *H. amplipennis*, Harold.

*Hab.* E. AFRICA, Kilimandjaro and Meru, Kibonoto (*Dr. Sjöstedt*:  $\sigma$   $\varphi$ ).

Dr. Sjöstedt has kindly lent me a pair of this species. Apart from the less dilated anterior tibiæ of the male, they have the prothorax more constricted at the base than usual in *H. amplipennis*, a long and variable series of which (including a pair named by Bourgeois) is before me.

67. *Hapalochrus scabrosus*, sp. n.

♀. Elongate, opaque above, shining beneath, clothed, the legs included, with very long, erect, blackish hairs; bluish-green, the dorsal surface of the abdomen (the last three segments excepted) red, the antennæ (the basal joint in part excepted), palpi, and legs black or metallic. Head and prothorax rather small, densely scabroso-punctulate, the latter broader than long, abruptly, sinuately narrowed posteriorly, and with shallow basal depression. Elytra long, somewhat inflated, about as broad as the prothorax at the base, widened to about the middle, the sides rounded from a little below the base to the apex; coarsely, confluent, rugosely punctate, the raised interspaces dull, densely punctulate. Wings abbreviated.

Length  $4\frac{3}{4}$ , breadth  $2\frac{1}{2}$  mm.

Hab. E. AFRICA, Mau, Masai Reserve (Capt. A. O. Luckman: 7. i. 1914).

One specimen, injured by pinning. Differs from the other species with subapterous females, *H. amplipennis*, *modestus*, *semicupreus*, &c., by the opaque upper surface, the densely punctulate, scabrous head and prothorax, and the very coarsely, confluent punctured elytra, the insect thus having a different aspect from any of its allies. It is one of several new Malacoderms discovered by Capt. Luckman in Central Africa.

## Key to the Asiatic Species.

♂♂.

- 25 (26). Antennæ flabellate; anterior tarsal joint 2 prolonged above; body metallic. [Malayan region.] . . . . . Species 68, 69.
- 26 (25). Antennæ serrate; anterior tarsal joint 2 prolonged above.
- 27 (32). Elytra maculate.
- 28 (29). Intermediate trochanters scaphiform (No. 70) or produced into a downwardly-directed lobe (No. 71); intermediate tibiæ slightly thickened, sinuate within. [India, Burma, &c.] . . . . . Species 70, 71.
- 29 (28). Intermediate trochanters and tibiæ simple.
- 30 (31). Anterior trochanters toothed. [India.] . . . . . Species 72.
- 31 (30). Anterior trochanters unarmed. [Persia.] . . . . . Species 73.
- 32 (27). Elytra not maculate; body metallic; anterior trochanters, with a short tooth; intermediate tibiæ incrassate and appendiculate. [Arabia.] . . . . . Species 74.



68. *Hapalochrus luzonensis*.

? *Hapalochrus luzonensis*, Pic, Mélanges exot.-entom. x. p. 15 (♂)  
(Oct. 1914).

♂. Elongate, subparallel, robust, shining, thickly clothed with rather coarse whitish pubescence, with long erect hairs intermixed; bluish-green, the oral organs, basal joints of antennæ, legs, and abdomen testaceous, the rest of the antennæ black. Head and prothorax closely punctulate; the latter convex, wider than the head, transversely subquadrate as seen from above, rounded at the sides as seen laterally, uneven, broadly hollowed down the middle posteriorly, and with an oblong prominence in the centre of the depression; antennæ long, strongly flabellate from the third joint. Elytra long, at the base not broader than the prothorax, slightly widened posteriorly, rounded at the apex; densely, finely, rugulose punctate. Anterior tibiæ thickened, strongly, simply sinuate within, hollowed beneath; anterior tarsal joints 1 and 2 thickened, subequal in length, 2 extending over base of 3 and nigro-pectinate at the tip; intermediate tibiæ very stout, broadly dilated, convex, slightly sinuate externally, almost straight on their inner edge, deeply sulcate beneath, without trace of lobe at the inner apical angle.

♀. Antennæ much shorter, serrate from joint 2 onward; prothorax much smoother on the disc; femora partly infusate.

Length  $4\frac{1}{2}$ –5, breadth 2 mm. (♂ ♀.)

*Hab.* PHILIPPINES (*Mus. Brit.*: ♀), Luzon (*type of Pic*: ♂), Mindoro (*E. Everett*: ♂).

The above description is taken from a pair in the British Museum. The ♂ agrees fairly well with Pic's diagnosis of *H. luzonensis*, except that he makes no particular allusion to the greatly thickened intermediate tibiæ, these (and the posterior pair also!) being given as "épaissies." The present insect is narrower and less convex than the African *H. sjöstedti* and *H. simoni*, and the pale legs, &c., separate it from *H. mirabilis*, Pic.

69. *Hapalochrus mirabilis*.

♂. *Hapalochrus mirabilis*, Pic, L'Echange, xxiii. p. 131 (1907).

♂. Antennæ long, strongly flabellate from joint 4 onward; anterior tarsal joints 1 and 2 thickened, 2 projecting over the base of 3; anterior tibiæ sinuate within; intermediate tibiæ simple.

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♀. Antennæ shorter, serrate.

Length  $3\frac{1}{2}$ – $4\frac{3}{4}$ , breadth  $1\frac{4}{5}$ – $2\frac{1}{4}$  mm. (♂ ♀.)

*Hab.* TONKIN, Dap-Can (*type of Pic*); PENANG (*Mus. Brit.*); ? INDIA (*Mus. Brit.*).

Five males and one female, apparently referable to *H. mirabilis*, are contained in the British Museum. These specimens are all from the Bowring collection, received in 1863, but the locality "India" requires confirmation. An elongate, narrow, very shining, cinereo-pubescent, bluish-black form, with cyaneous, densely, very finely punctate elytra; the prothorax almost smooth, transversely excavate in the middle at the base, and obsoletely canaliculate anteriorly; the antennæ and legs black.

#### 70. *Hapalochrus fasciatus*.

*Cantharis fasciata*, Fabr. Ent. Syst. i. 1, p. 218 (1792).

*Apalochrus lætus*, Erichs. Entomographien, p. 51 (1840) (part.); Bourg. Compt. Rend. Soc. Ent. Belg. xxxv. p. cxi (1891).

*Apalochrus fasciatus*, Gorh. Ann. Soc. Ent. Belg. xxxix. p. 317 (1895).

*Apalochrus depictus*, Gorh. loc. cit. (♂ ♀).

♂. Anterior femora incrassate; anterior tibiæ slightly hollowed towards the apex within; anterior tarsal joints 1 and 2 stout, 1 transverse, 2 elongated and extending over 3 to its apex, nigro-pectinate at the tip; intermediate trochanters (Pl. VIII. fig. 32) elongated, boat-shaped, pointed at the tip; intermediate femora stout, strongly incrassate towards the base; intermediate tibiæ moderately thickened, deeply excavate towards the apex within, the trochanter being received into the cavity when the tibiæ are drawn inward.

*Hab.* INDIA, Nepal, Bengal, Lohadugga, Berkampur, &c. (*Mus. Brit.*), Sitapur in W. Almora (*H. G. Champion*), Calcutta (*type of depictus*), Kanara, Belgaum (*H. E. Andrewes*), Kunbir Nowaloti, Tetara, Kurseong (*sec. Bourgeois*).

Gorham correctly stated that two species had been confused by Erichson under the name *H. fasciatus*, but he omitted to note that the ♂-characters of the insects he called *H. fasciatus* and *H. depictus* were precisely similar. The latter was based upon specimens (♂ ♀) with the cyaneous elytral marking much reduced in size, those from Belgaum and Kanara determined by him as *H. fasciatus* having them much more extended. This character, and the development of the prothoracic vitta, which is sometimes reduced to a small spot (but never wholly absent as in *H. lætus*, F.), proves to be of no importance when a long

series is examined. Himalayan examples belong to the form *depictus*, the types of which were said to be from Calcutta.

### 71. *Hapalochrus letus*.

*Malachius letus*, Fabr. Svst. Eleuth. i. p. 305 (1801).

*Apalochrus letus*, Gorh. Ann. Soc. Ent. xxxix. p. 317 (♂ ♀) (1895).

♂. Intermediate trochanters (Pl. VIII. fig. 27) produced into a stout, downwardly-directed lobe, which is abruptly truncate at the tip; the other characters as in *H. fasciatus*.

*Hab.* BURMA, Toungoo, Shuegyin, Tharrawaddy (*coll. Andrewes*); ? SUMATRA (*type of Fabricius*).

Fourteen examples seen, including five males, nearly all in very bad condition. Extremely like the darker form of *H. fasciatus* from Kanara and Belgaum, and only separable therefrom by the wholly rufescent prothorax and the peculiar form of the ♂ intermediate trochanters. Mr. Andrewes has been kind enough to lend me the specimens of these two species which were examined and reported upon by Gorham in 1895.

### 72. *Hapalochrus malabarensis*.

*Hapalochrus malabarensis*, Pic, Le Naturaliste, xxv. p. 81 (1903).

♂. *Apalochrus (Spinapalochrus) malabarensis*, Pic, Mélanges exot.-entom. xxx. p. 12 (June 1919).

♂. Antennæ long, stout, serrate, tapering towards the tip, joint 2 much longer than 3; anterior trochanters armed with a long, slender tooth; anterior tibiæ slender, curved, hollowed towards the apex within, the apical portion slightly thickened; anterior tarsal joints 1 and 2 stout, short, subequal in length, 2 extending over base of 3; intermediate tibiæ hollowed from about the middle to near the apex within.

Length  $4\frac{1}{2}$ , breadth 2 mm.

*Hab.* INDIA, Mahé, Malabar (*type of Pic*), Ceylon (*Col. Yerbury*).

A male from Ceylon, presented to the British Museum in 1892, agrees with Pic's original description, except in its smaller size and the entirely black posterior legs. This insect has the head black, the prothorax rufescent, and the elytra bluish-black, with a common, narrow, median fascia and a spot at the tip testaceous. *H. malabarensis* and *H. rufofasciatus*, Pic, the latter from Tonkin (1919), are referred to a new subgenus, *Spinapalochrus*, by him, the characters [♂] given for it being "Coxis anticis dentatis, pedibus simplicibus," the trochanters having evidently been

mistaken for the coxæ and the anterior tarsal structure overlooked. The toothed trochanters is a character to be found in various metallic African *Hapalochri*, and the subgenus, if adopted, would separate many closely allied insects.

73. *Hapalochrus persicus*, sp. n.

♂. Elongate, depressed, rather narrow, subparallel, closely pubescent, the prothorax shining, the rest of the upper surface duller or opaque; green or brassy-green, the anterior margin of the head, the oral organs and antennæ (the more or less infuscate outer half of the latter excepted), the prothorax with a large spot or transverse patch on each side in front (sometimes connected along the anterior margin or reduced to a narrow streak), the elytra with a large, common, triangular, scutellar patch, a narrow, angulate, post-median fascia, and a common, transverse space at the apex (the basal and post-median markings sometimes narrowly connected along the suture and the apical one usually extending outwards along the apical margin), the legs (a small black patch at the apices of the femora, and the apices of one or more of the tibiæ, excepted), and the under surface in part, testaceous. Head densely, rugulose punctured, transversely depressed anteriorly; antennæ rather stout, moderately long, serrate, joints 2 and 3 wider than 4. Prothorax broader than long, as wide as or wider than the head, the sides rounded and converging posteriorly, the transverse basal sulcus deep; finely punctured at the sides, smoother on the disc. Elytra long, slightly widening posteriorly, flattened on the disc; densely, very finely, rugulose punctate. Anterior tarsal joints 1 and 2 rather stout, extending over the base of 3, subequal in length, 2 slightly swollen, rounded and nigro-pectinate at the tip; anterior and intermediate tibiæ slender, simple.

♀. Antennæ shorter and more slender, subserrate.

Length 5-6, breadth  $1\frac{9}{10}$ - $2\frac{1}{10}$  mm. (♂ ♀.)

*Hab.* PERSIA, Kurdistan in Turcomania (*Millingen, ex colls. Fry and Sharp*).

Four specimens, two of each sex. Near *H. fedtschenkoi*, Solsky (1882), and *H. turkestanicus*, Pic (1907), from Northern Asia, but with different prothoracic and elytral markings, &c. The elytra may be said to have a large, elongate triangular patch on the basal half (nearly or quite reaching the suture), and a broad, common, angulate, sub-apical fascia, metallic or black, and the rest of their surface testaceous.

74. *Hapalochrus millingeni*, sp. n.

♂. Elongate, narrow, very shining, cinereo-pubescent; bluish-green, the antennæ (the testaceous lower surface of the basal joints excepted) black; the legs testaceous, with a streak along the upper edges of the anterior and intermediate femora, the posterior femora entirely, and the tips of the tarsi, infuscate or metallic. Head closely punctate; antennæ moderately long, rather stout, serrate. Prothorax small, transverse, punctured at the sides, smooth on the disc. Elytra long, widening from the base to near the apex, rounded at the tip, depressed on the disc below the base; densely, finely punctate. Anterior trochanters with a short tooth; anterior femora dentate at the middle beneath; anterior tibiæ thickened, angularly dilated at about the middle above, and obliquely compressed, and with a diaphanous space on its inner edge, towards the apex; anterior tarsal joints 1 and 2 slightly thickened, 2 shorter than 1 and narrowly extended over the base of 3; intermediate tibiæ (Pl. VIII. fig 31) much thickened, deeply sinuate within from a little beyond the middle to the apex, and with a curved retractile lobe visible in the cavity.

♀. Head smoother; antennæ shorter and more slender, subserrate; legs darker, the tibiæ fusco-testaceous.

Length ♂, breadth  $1\frac{1}{3}$ – $1\frac{1}{2}$  mm.

*Hab.* ARABIA, Yemen (*Millingen, ex coll. Fry*).

One pair, from the Fry collection. A very small, narrow, posteriorly widened, shining, bluish-green form, not unlike the African *H. mashunus*, Gorb., and with somewhat similar intermediate tibiæ in ♂, the anterior tibiæ angularly dilated, and the second joint of the anterior tarsi with a claw-like projection, in the same sex.

75. *Hapalochrus opulentus*.

*Hapalochrus opulentus*, Péring. Trans. S. Afr. Phil. Soc. vi. 2, p. 46 (♂ ♀) (1892).

♂. Very like *H. abyssinicus*, Harold (No. 13) (= *major*, Pic); head narrower, green to the anterior margin, densely punctured; elytra densely, very finely punctate; legs wholly testaceous; intermediate tibiæ similarly swollen, the denticiform pencil of hairs [not mentioned by the author] arising from near the inner apical angle much narrower; anterior tarsal joint 2 extending over 3.

*Hab.* S. AFRICA, Ovampoland and Transvaal.

Dr. Péringuey has kindly lent me the types of this species for examination, and we take the opportunity of giving a

figure of the intermediate tibiae of the ♂. In the arrangement here adopted, *H. opulentus* should be numbered 17 (a); see also pp. 180, 191.



*Hapalochrus opulentus*, Péring., ♂.

EXPLANATION OF PLATE VIII.

- Fig. 1. *Hapalochrus simoni*, Pic, ♂; anterior leg.  
 Fig. 2. " *dasytiformis*, sp. n., ♂; anterior leg.  
 Fig. 3. " *festivus*, Er., ♂; intermediate tibia.  
 Fig. 4. " *abyssinicus*, Har., ♂; intermediate tibia.  
 Fig. 5. " *atratus*, sp. n., ♂; anterior leg.  
 Fig. 6. " *lobipes*, sp. n., ♂; anterior leg.  
 Fig. 7. " *suntuosus*, Boh., ♂; anterior tibia and tarsus.  
 Fig. 7a. " " var., ♂; anterior tibia.  
 Fig. 7b. " " ♂; intermediate tibia.  
 Fig. 8. " *elgonensis*, sp. n., ♂; intermediate tibia.  
 Fig. 9. " *longior*, Pic, ♂; intermediate tibia.  
 Fig. 9a. " ♂; intermediate femur and tibia, from beneath.  
 Fig. 10. " *constrictipes*, sp. n., ♂; intermediate tibia.  
 Fig. 11. " *maluchioides*, Fairm., ♂; intermediate tibia.  
 Fig. 12. " *uncinatus*, sp. n., ♂; intermediate tibia.  
 Fig. 13. " *bilamellatus*, sp. n., ♂; intermediate tibia.  
 Fig. 14. " *cochleatus*, sp. n., ♂; intermediate tibia.  
 Fig. 15. " *spectabilis*, Ancy, ♂; intermediate tibia.  
 Fig. 16. " *nitens*, Gørh., ♂; intermediate tibia.  
 Fig. 17. " *clavicornis*, sp. n., ♂; intermediate tibia.  
 Fig. 18. " *dilaticornis*, sp. n., ♂; intermediate tibia.  
 Fig. 19. " *appendicifer*, Pic, ♂; intermediate tibia.  
 Fig. 20. " *longicornis*, sp. n., ♂; intermediate tibia.  
 Fig. 21. " *fissipes*, sp. n., ♂; intermediate tibia.  
 Fig. 22. " *inchoatus*, sp. n., ♂; anterior leg.  
 Fig. 22a. " ♂; intermediate tibia.  
 Fig. 23. " *azureus*, Er., ♂; intermediate tibia.  
 Fig. 24. " *mashurus*, Gørh., ♂; intermediate tibia, from beneath.  
 Fig. 25. " *lacinius*, sp. n., ♂; intermediate tibia, from beneath.  
 Fig. 26. " *hamatus*, sp. n., ♂; intermediate leg.  
 Fig. 27. " *latus*, F., ♂; intermediate trochanter, femur, and tibia.

- Fig. 28. *Hapalochrus angulatus*, sp. n., ♂; intermediate tibia.  
 Fig. 29. " *triangularis*, sp. n., ♂; intermediate tibia.  
 Fig. 30. " *constricticollis*, sp. n., ♂; intermediate tibia.  
 Fig. 31. " *millingeni*, sp. n., ♂; intermediate tibia.  
 Fig. 32. " *fasciatus*, F., ♂; intermediate trochanter, femur,  
 and tibia.

*Alphabetical numbered list of species of Hapalochrus enumerated in this paper; those marked with an asterisk are treated as new.*

- |                        |                       |
|------------------------|-----------------------|
| abyssinicus, 13.       | mashunus, 39.         |
| aerosus, 30.           | maynei, 57.           |
| *amadiensis, 52.       | *millingeni, 74.      |
| amplipennis, 65.       | mirabilis, 69.        |
| *angulatus, 47.        | modestus, 66.         |
| appendicifer, 29.      | *mollis, 53.          |
| *armatus, 54.          | nitens, 21.           |
| *atratus, 11.          | nobilis, 4.           |
| azureus, 38.           | opulentus (17 a), 75. |
| *bilamellatus, 18.     | *patruelis, 32.       |
| *caudatus, 56.         | *persicus, 73.        |
| *cinerascens, 42.      | *platycerus, 35.      |
| *clavicornis, 22.      | *ramulosus, 12.       |
| *cochleatus, 19.       | *rhodesianus, 49.     |
| *confusus, 55.         | *rugosus, 36.         |
| *constricticollis, 62. | *scabrosus, 67.       |
| *constrictipes, 15.    | semicupreus, 33.      |
| *cyaneonitens, 63.     | *semilaevis, 59.      |
| *cyanocephalus, 48.    | simoni, 8.            |
| *dahomeyanus, 27.      | sjöstedti, 6.         |
| *dasytiformis, 10.     | spectabilis, 20.      |
| deformipes, 2.         | sumtuosus, 1.         |
| densatus, 41.          | testaceicornis, 24.   |
| *dilaticornis, 23.     | *trapeziderus, 7.     |
| *dollmani, 58.         | *triangularis, 61.    |
| *elgonensis, 14.       | tscholleni, 28.       |
| fasciatus, 70.         | *uncinatus, 17.       |
| festivus, 5.           | viridicollis, 34.     |
| *filicornis, 46.       |                       |
| *fissipes, 37.         |                       |
| *foveiger, 44.         |                       |
| *fureatus, 50.         |                       |
| *fuscicornis, 26.      |                       |
| *hamatus, 45.          |                       |
| *inæqualis, 60.        |                       |
| *inchoatus, 25.        |                       |
| *irregularis, 51.      |                       |
| janthinus, 43.         |                       |
| kenyensis, 64.         |                       |
| *lacinosus, 40.        |                       |
| lætus, 71.             |                       |
| *lobipes, 9.           |                       |
| *longicornis, 31.      |                       |
| longior, 3.            |                       |
| luzonensis, 68.        |                       |
| malabarensis, 72.      |                       |
| malachioides, 16.      |                       |

#### SYNONYMS AND VARIETIES.

- cæruleus, 38.  
 comalti, 16.  
 ?cribrarius, 38.  
 depictus, 70.  
 ?davivieri, 38.  
 ?erichsoni, 1.  
 goossensi, 43.  
 ?jansoni, 3.  
 \*kameruunus, 63.  
 major, 13.  
 martini, 29.  
 moloensis, 33.  
 nyassensis, 1.  
 reductus, 1.  
 signaticollis, 1.  
 simplicipes, 6.